

September 30, 2019

Specialty Granules, LLC  
1455 Old Waynesboro Road  
Blue Ridge Summit, PA 17214

Re: Specialty Granules, LLC  
"Northern Tract Quarry"  
Permit No.: 01180301  
NPDES No.: PA0279617  
Township: Hamiltonban  
County: Adams

Ladies and Gentlemen:

We have completed our review of the above-referenced permit application and have identified the following deficiencies:

1. The Northern Tract Core Samples Report (Appendix 7.1) analytical data submitted on November 12, 2018 appears to have been generated using only a polarized light microscopy (PLM) method to evaluate the extent and quantity of naturally occurring asbestos (NOA). It does not appear that the samples were also analyzed using a transmission electron microscopy (TEM) method. Unless DEP is incorrect about the existence of analytical data using TEM, please elaborate on the methods used to evaluate the extent and quantity of NOA. If the November 12, 2018 Report did not utilize TEM, and no additional NOA data exists that was analyzed using TEM, DEP recommends using the following procedures and requests that SGI either perform these or respond to the recommended procedures:
  - a. Perform additional NOA site characterization activities demonstrating that the procedures are adequate to fully delineate and evaluate the potential for incurring NOA as a result of proposed mining activities at the Northern Tract Quarry.
  - b. Provide a comprehensive mapping and survey of all lithographic or structural units that potentially contain NOA, including veining and other relevant geological features at the proposed Northern Tract Quarry.
  - c. Please demonstrate that, in addition to all 17 core holes and all 50-foot lift intervals, all zones of geologic or structural variability are represented in the sample collection methods.
  - d. Prepare the samples for analysis using a preparation method that does not excessively pulverize the sample. Please provide a specific analysis of and justification for the selected pulverization method proposed for the Northern Tract Quarry.

- e. Please evaluate the suitability of the following methods to characterize the presence of NOA: PLM, utilizing the California Air Resources Board (CARB) 435 method; TEM, utilizing the EPA 600/R-93/116 and CARB-modified bulk TEM protocol modified for NOA analysis; and the applicability of multi-increment sampling; as well as any other methods SGI proposes. Please evaluate the suitability of the above referenced procedures for analysis of all 40 existing sampling locations, as well as any additional sampling locations that may be necessary, or propose a plan for the application of the above referenced procedures on a number of samples deemed satisfactory to adequately characterize the presence of NOA at the Northern Tract Quarry. Please provide all arguments and supporting documentation to advance the proposed methodology. The proposal must be approved by the Department in writing prior to implementation. If previous SGI submissions addressed this issue, please refine the previous response.
  - f. Submit the resulting NOA data in a format that clearly identifies the locations of the samples.
2. Please provide the chain of custody, and any additional information necessary, to identify the locations of the samples collected for the Northern Tract Core Samples Report.
  3. Please address whether SGI will propose a program for NOA testing of settled dust due to truck traffic and other quarry operations, and what the extent of that program will be.
  4. Please address the potential for NOA-containing dust from drill rigs and blasting, including the possible use of water controls, particulate capture systems (hoods, skirts, ducts), and/or particulate filters.
  5. Please address the potential for NOA-containing dust on public roadways, including use of water trucks and other methods when icing may be a problem.
  6. Please conduct additional water sampling and analysis for NOA using EPA Method 100.1.
    - a. If filtration is being used prior to discharge at Outfall 001 (NPDES permit no. PA0009059), collect samples before and after filtration.
    - b. Collect samples upstream and downstream of the discharge on Miney Branch, and upstream of the proposed discharges to Tom's Creek.
    - c. Water used for dust suppression of any sort should be monitored for asbestos using EPA Method 100.1, with resampling of water sources at least once per month.
  7. Please submit to DEP for review all existing NOA analytical results in the possession of SGI or its consultants for both the Northern Tract proposal and the existing Pitts Quarry.
  8. Please update the Appendix 7.2 Suspect Minerals Identification and Management Guide in accordance with the results of the additional NOA site characterization activities and comprehensive mapping and survey noted above.

9. Please utilize historical data collected from the Pitts Quarry to explain how much NOA has been found since quarry mining began. Please also describe whether this information is predictive of mining in the Northern Tract Quarry.
10. Please specifically evaluate and address in detail the related NOA issues regarding the geologic characterization, sampling methodology, sample preparation, and laboratory analysis, including the counting of cleavage fragments, raised by Erskine Environmental Consulting in its June 6, 2019 Review of the Qualitative Geologic Survey Sampling Plan for the Rock Hill Quarry located in East Rockhill Township, Bucks County, PA; and in Erskine Environmental's September 1, 2019 and September 23, 2019 reviews of laboratory reports. Relevant documents may be found on the Department's website under Regional Resources – Southeast Regional Office – Community Information – Rock Hill Quarry.
11. Please address the potential for mitigation or elimination of the presence of NOA in any wet dust suppression system, or water used for dust control, such that NOA present in any water source will not be aerosolized during dust-suppression activities.
12. How is the quarry expansion expected to impact the existing air-permitted equipment at the existing Pitts Quarry?
13. Please provide any documentation that may be available showing the friable materials that are emitted to the air and their contents?
14. Please provide information regarding any regulations related to asbestos or other friable materials, pursuant to which the existing facility has in the past taken any special precautions, obtained any permits or licenses, or had any contacts with any government agencies.
15. Please provide copies of any studies of which the facility is aware, which may address the existence (or not) of increased public health risks due to asbestos fibers in neighborhoods in the vicinity of metabasalt quarrying operations.
16. Please provide copies of any studies or other information which the facility may possess regarding the potential health risks to employees at similar facilities due to the release of asbestos fibers in the workplace.
17. Please provide information regarding any reports from any current or past employees at the Pitts Quarry that their health has been negatively impacted by exposure to asbestos or silica dust at the facility.
18. Please provide information regarding any monetary settlements with any current or past employees with regard to allegations that their health has been negatively impacted by exposure to asbestos or silica dust at the facility.
19. One public commenter alleges that "I know for a fact that in 1975, when mining a company operated under the acronym GAF, at least one employee died from mesothelioma, an asbestos-associated malignancy. And his family was compensated in an out of court settlement for an undisclosed amount of money." Please respond to this allegation, as well as any relevant details, if true.

20. Has the facility ever been cited or otherwise investigated by EPA, MSHA, or OSHA for any air quality issues, especially related to asbestos or silicates?
21. One public commenter asserts that "The employees now have to wear special sealed masks so as not to breathe in any of the air and it is recommended by the company to change clothes and shoes, before leaving." Please confirm whether or not this is true, and also provide details on any other precautions regarding asbestos or other occupational dust that the facility may require of, or recommend to, its employees.
22. One commenter asserts that "The health of the community is threatened by the heavy dust (probably laced with asbestos) and definitely laced with very fine silica, both of which caused a friend's grandfather to die of Mesothelioma because he worked at the Grit Mill before they required masks." Please comment on any knowledge or information that the facility may have of this incident.
23. Please provide any information of which the facility is aware, regarding the presence of, or emission of crystalline silica (as opposed to asbestos) at the existing facility, and any related health effects to employees or to the general public.
24. Please provide any manuals or guidance used by SGI in identifying and managing suspect asbestos-containing materials.
25. DEP has determined that the R.J. Lee Group passive sampling method used at the SGI existing quarry is not adequate and lacks sufficient scientific foundation for use in determining public health impacts of asbestos in and around the SGI quarry. Rather, DEP believes that an active sampling method is appropriate, using low-flow air sampling pumps collecting samples at selected locations. Please provide SGI's response to this.
26. In order to fully characterize the ambient public health impacts of possible asbestos exposure in and around the SGI quarry, including current quarrying operations, DEP believes that air sampling and analysis should be conducted according to recommendations in the EPA OSWER Directive #9200.0-68, Framework for Investigating Asbestos-Contaminated Superfund Sites, including preferential use of ISO 10312 TEM as outlined in that document. DEP believes that all references in the plans to sampling, preparation and analysis methodologies should be re-evaluated with this document in mind. Please provide SGI's response to this.
27. In order to proceed with processing SGI's mining permit application, DEP envisions that SGI will need to provide a comprehensive and detailed sampling analysis protocol based on the methods specified above. Please provide a revised asbestos sampling plan/protocol addressing at least the following elements:
  - a. Address a coordinated air sampling event at the existing quarry, to take place as soon as possible, the results of which may be used to inform DEP's decision-making on the Northern Tract Quarry Permit Application. It is anticipated that, depending on the results of this sampling event, and other information which may be provided in response to this technical deficiency letter, that further periodic air sampling may also be required, either at the existing quarry, or in relation to any quarry expansion which may be approved.

- b. Address consistency with EPA OSWER Directive #9200.0-68, Framework for Investigating Asbestos-Contaminated Superfund Sites, including preferential use of ISO 10312 TEM.
  - c. Provide a description of how wind direction, wind speed, relative humidity, and temperature will be monitored during each sampling event, including whether the use of an automated, site-specific weather monitoring station is feasible, and whether wind speed and direction can be monitored at a frequency of no less than one time per hour for each sampling event.
  - d. Include a specific recommendation for the air quality sampling frequency and duration at the existing SGI Pitts Quarry, based on the relative diurnal activity in the quarry.
  - e. Specify the pore size for air sampling filters. DEP recommends that air sampling should use 0.45-micron pore size filters unless there are technical reasons that necessitate otherwise, such as excessive dust near the sampling to the extent that the filter clogs and a sufficient volume cannot be sampled.
  - f. Specify that all sampling events, except pre-operation monitoring, should take place at times when the permitted sources and general quarry activities are in operation.
  - g. Specify sample turnaround times no longer than 24 hours for relevant test results.
  - h. Provide a description of the operational response action to be taken in the event that there is an exceedance of an action level of 0.01 f/cc result for asbestos.
28. SGI has indicated to DEP that it subjects itself to a certification/testing process in order to conclude that its products are free of asbestos. This process is also reportedly related to the generation of SDS documentation for SGI's products. Please explain the following items:
- a. What is the 'certification' you are referring to? Is it an in-house, International Organization for Standardization (ISO), or something else? Please identify and clarify.
  - b. Provide details of testing such as:
    - i. Sample acquisition – how the samples were collected.
    - ii. Location and frequency of sample collection – provide map.
    - iii. Number of samples required to be collected to be representative of the ambient air concentration of asbestos.
    - iv. Time between collection and analyses.
    - v. Sample stabilization – if applicable.
    - vi. Chain of custody
    - vii. Sample preparation
    - viii. Analytical procedures used such as EPA, ASTM, etc.
    - ix. Analytes and concentration ranges
    - x. Physical analyses utilized such as microscopic analysis.

- c. Parameters and specifications required to be met for 'certification' to occur.
- d. Furnish any written work products that result from the certification process, such as SDS sheets or other product certification materials.

You must submit a response fully addressing each of the technical deficiencies set forth above within thirty (30) business days or the Department may deny your application.

If you have any questions regarding this letter, please contact our office at 814.472.1900.

Sincerely,



Chadwick Paronish, P.G.  
Licensed Professional Geologist  
Bureau of District Mining Operations

cc: Daniel Sammarco, P.E., District Mining Manager  
Rock Martin, P.G., Chief, Technical Services Section  
Wade Gallaher, Mine Inspector Supervisor  
Chadwick Paronish, P.G., License Professional Geologist  
Dan Welte, Mine Conservation Inspector  
Craig Lambeth, Attorney  
Alicia Duke, Attorney  
William Weaver, Environmental Program Manger  
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